Ms. Wendy Y. Watanabe
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October 30,1988

Subject: Traffic & Safety Investigation; Wildman Property,
27910 Pacific Coast Highway

Dear Ms. Watanabe:

This letter type report represents my opinions and conclusions relative to an investigation of the traffic and safety conditions in and around the subject property. The investigation focused on the safety aspects of providing additional parking along Pacific Coast Highway (PCH) on and in the vicinity of the subject property.

In summary, after investigating Caltrans records and field reviewing the site, it is my opinion that placing parking on the area allocated for parking on the subject site would create a safety hazard for vehicles merging into through traffic and for those emerging from the parking area. This is due to the speed of traffic, geometric design of Pacific Coast Highway, sight lines and accident history along this section.

ISSUE

From the traffic engineering standpoint, determine the safety aspects and/or benefits of providing a twenty five foot area along the subject property's frontage for parking.

DATA AVAILABLE

- Caltrans data,including speed survey data, traffic count census, and TASAS accident history computer printouts,
- Field review of site
- Right of way and easement maps for subject property
- Discussions with Caltrans and Los Angeles County design and traffic engineering personnel.

DISCUSSION

Pacific Coast Highway from the existing traffic signal at Paradise Cove (Post Mile 53.03) to one half mile south of the subject property (PM 52.50) is striped currently for four through lanes, a two way left turn lane and paved shoulders. The through lanes are approximately 12 feet wide. The two way left turn lane is 10 feet wide and each of the paved shoulders is approximately 8 feet wide. Parking along and on the shoulder is allowed in the subject section.

The Wildman property driveway is located at approximately post mile 52.7. It is located near the crest of a vertical curve for southbound traffic that reduces the available sight distance for drivers on PCH. Approximately 0.2 mile to the south of the subject driveway, PCH curves toward the west.

Traffic volumes on PCH in the vicinity of the site are approximately 31000 per day.[1] Like most of the PCH traffic, the vehicular mix has the potential for confronting motorists with the unexpected. Commuter traffic is mainly through traffic and higher speed. It is combined with the slower beach and recreational traffic. This roadway also has bicycle traffic that must use the roadway or shoulder due to the lack of painted bicycle lanes.

The condition presenting the greatest potential for conflict is caused by a combination of highway geometrics and roadside development. The roadway alignment is curved and the profile grade is rolling. There are many private driveways, some obscured by landscaping, that intersect the highway in a manner that limits the stopping sight distance and the intersection sight distance. This limited intervisibility between the highway driver and the private driveway user creates potential for accidents. This condition is further exacerbated where the vertical crest of a curve intersects at or close to the private driveways.

Caltrans conducted speed surveys in September 1985 for the subject section. The posted speed limit was 55 mph. The critical speed, i.e. that speed at which 85 percent of the vehicles are traveling at or below, was 56mph northbound and 58mph southbound. The higher speed in the southbound direction is that which is coming over the crest of a vertical curve in the vicinity of the Wildman driveway. The location of the speed survey is approximately 0.18 mile from the Wildman driveway. Thus, the speeds are representative of what vehicles were traveling in the vicinity of his property.

Caltrans computer records of accident history, TASAS,[2] reports 5 accidents in calendar year 1986 and 7 accidents in 1987 for the 0.53 mile section in which the subject driveway is located. This produces a rate of occurrence for this section of 0.84 and 1.16 accidents per million vehicle miles (acc/mvm), respectfully. Caltrans develops expected accident rates based on roadway conditions and traffic volumes. This section is expected to have an accident rate of 2.00 acc/mvm.

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1. Caltrans "Traffic Census", 1985, 1987, California Department of Transportation, Route 1, page 2.
2. "Traffic Accident Surveillance and Analysis System", California Department of Transportation, "Traffic Manual", page 3-6, in effect 8-1978.

EXISTING PARKING USAGE

Field observations taken in July and September 1988 for typical weekdays,(Thursday and Wednesday respectively) indicate that the shoulder parking over the one half mile section under study is less than 10 percent. This includes both the east and west shoulders.

SUBJECT PARKING AREA POTENTIAL LAYOUT

The setback of the parking area on the Wildman property is such that vehicles using the area would have to park and unpark in a parallel manner. The 25 foot width does not allow for two aisles of parking and a travel aisle, similar to that found in typical shopping centers. Thus, only the typical eight foot wide parallel parking stall configuration could be developed for the length of the property. This is estimated to provide an additional 5 to 6 spaces.

The property frontage is too short to provide an adequate length of deceleration, acceleration and transition lane to the area. Transitions into left turn and right turn lanes where speeds are 50 to 55 mph require at least 120 feet in length. The entire length of the property is only 170 feet long.

SIGHT DISTANCE TO AND FROM THE PARKING AREA

Traffic traveling southerly (toward Santa Monica) that passes through the traffic signal at Paradise Cove must traverse a vertical curve before reaching the Wildman property and the location for a proposed parking area. The vertical curve begins near the traffic signal and crests before the subject property. The distance from the traffic signal to 27910 PCH is approximately 1600 feet.

Vehicle speeds have been surveyed in excess of 55mph in this section in the southerly direction. Drivers are accelerating from a stopped position as they leave the signal or they are accelerating uphill in a southerly direction. When they reach 27910 PCH drivers would be at high speeds and unaware of the potential for entering or merging vehicles from the shoulder area.

The speed differential between merging,parking and unparking vehicles and the higher speed PCH traffic would contribute to hazardous operation and increased accident potential for all users.

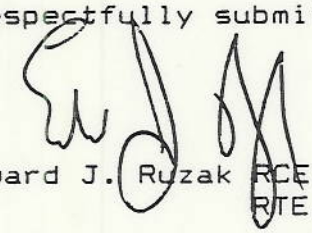
CONCLUSIONS

Discussions with Caltrans personnel and Los Angeles County traffic and design personnel indicate that there are no plans for widening PCH in this area within the next five years. Thus, the existing geometrics should remain.

Traffic volumes are projected to increase along PCH due to growth in the area and the availability of this corridor as a viable alternative to the Ventura/San Diego Freeway route. If the existing geometrics are retained and speeds continue to exceed the posted speed limit(and basic speed limit in California), the potential for accidents will tend to increase. Cross street traffic and driveway traffic emerging into PCH will find less available gaps in the PCH flow. Limited sight distance and high speeds increase the propensity for broadside type accidents.

When the traffic mix,speed differential and parking and unparking maneuvers from off pavement areas are included in the analysis it becomes obvious that any aditional access from the side of PCH would contribute to potentially hazardous conditions for all users.

Respectfully submitted,



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